BRUHAT BANGALURU MAHANAGARA PALIKE

Name of Work: Improvements Roads and Drains at Kogilu Colony in Ward No. 05

Job code:005-20-000116

								Est Cost in Lakhs		100.00
Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	Removing and resetting of footpath slab (P.No.270, I.No.37.56 of PW, P&IWTD SR 2018-19)								
	Cover R&R	Sqm							
	W0573 CH 0-45		1	50.00	0.90		45.00		
	W0573 CH 45-80 (Near Temple)		1	50.00	0.90		45.00		
	W0310 Ashwath Katte Road		1	20.00	0.90		18.00		
	W0288 CH 25-125		2	100.00	0.90		180.00		
							288.00		
	Provision of 50% New Precast slab for Damaged Length						-144.00		
							144.00	208.82	30070.08
	Basic rate	197.00							
	Area Weightage 6%	11.82							
	Total	208.82							
2	KSRRB M200-13.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. II. By Mechanical Means. A. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 139, I.No. 18.20 of CSR 2018-19)								
	CC Road Dismantling	Cum							
	W0573 CH 0-45		1	50.00	9.00	0.20	90.00		
	W0573 CH 45-80 (Near Temple)		1	50.00	4.00	0.20	40.00		
	W0310 Ashwath Katte Road		1	20.00	4.00	0.20	16.00		
	W0288 CH 0-25		1	27.00	5.00	0.20	27.00		
	W0288 CH 25-125		1	100.00	5.00	0.20	100.00		
	Cross Road-1		1	65.00	3.78	0.20	49.14		
	M0016		1	100.00	1.20	0.15	18.00		
							340.14	501.38	170539.39
	Basic rate	390.00							
	Loading and unloading with 10km lead= 57+2.0x1.3x10 = 83.00	83.00							
	Area Weightage 6%	28.38							
	Total	501.38							
3	KSRRB M300-1. KSRRB 300-1. Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (P.No.143, I.No.19.1 of PW, P&IWTD SR 2018-19)								
	Desilting of Drain	Cum							
	W0288 CH 25-125		2.00	100.00	0.60	0.60	72.00		
	M0016		1.00	100.00	0.60	0.60	36.00		
							108.00	225.36	24338.88
	Basic rate	130.00							
	Loading and unloading with 10km lead= 57+2.0x1.28x10 = 82.60	82.60							
	Area Weightage 6%	12.76							
	Total	225.36							

	KSRDB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW P&IWTD S.R 2018-19)								
	Road Portion	Cum							
	New CC Road								
	W0673 CH 0-45		1	50.00	9.00	0.30	135.00		
	W0673 CH 45-80 (Near Temple)		1	50.00	4.00	0.30	60.00		
	W0310 Ashwath Katte Road		1	20.00	4.00	0.30	24.00		
	W0288 CH 0-25		1	27.00	5.00	0.30	40.50		
	W0288 CH 25-125		1	100.00	5.00	0.30	150.00		
	Cross Road-1		1	65.00	3.8	0.30	73.71		
	New RCC Drain								
	W0673 CH 0-45		1	50.00	1.10	1.20	66.00		
	W0673 CH 45-80 (Near Temple)		1	50.00	1.10	1.20	66.00		
	W0310 Ashwath Katte Road		1	20.00	1.10	1.20	26.40		
	W0288 CH 0-25		2	27.00	1.10	1.20	71.28		
	Cross Road-1		1	65.00	1.10	1.20	85.80		
	Main Road		1	151.00	1.40	1.50	317.10		
	New RCC Culverts		8	12.00	1.40	1.60	215.04		
			1	15.00	1.60	1.70	40.80		
	Overburden Earth		1	111.00	0.60	0.30	19.98		
							1391.61	128.30	178543.56
	Basic rate	41.00							
	Loading and unloading with 10km lead= 57+2.0x1.28x9 = 80.04	80.04							
	Area Weightage 6%	7.26							
	Total	128.30							
5	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1, 4.2 (P.No.13, I.No.4.2 of PW, P&IWTD SR 2018-19)								
	PCC-Bed	Sqm							
	New RCC Drain								
	W0673 CH 0-45		1	50.00	1.10	0.15	8.25		
	W0673 CH 45-80 (Near Temple)		1	50.00	1.10	0.15	8.25		
	W0310 Ashwath Katte Road		1	20.00	1.10	0.15	3.30		
	W0288 CH 0-25		2	27.00	1.10	0.15	8.91		
	Cross Road-1		1	65.00	1.10	0.15	10.73		
	Main Road		1	151.00	1.40	0.15	31.71		
	New RCC Culverts		8	12.00	1.40	0.20	26.88		
			1	15.00	1.60	0.20	4.80		
							102.83	5505.64	566117.43
	Basic rate	5194.00							
	Area Weightage 6%	311.64							
	Total	5505.64							
6	Providing laying plain/ reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs. With 20mm and down size granite metal coarse aggregates at 0.89 cum and fine aggregates at 0.43cum machine mixed, well compacted for walls and bottom including centring, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete as per specification 15cm wall and bottom thickness (P.No.275, I.No.37.59.2 of PW, P&IWTD SR 2018-19)								
	New RCC Drain	Cum							
	Raft Concrete								
	W0673 CH 0-45		1	50.00	0.90	0.15	6.75		

W0573 CH 45-80 (Near Temple)			1	50.00	0.90	0.15	6.75		
W0310 Ashwath Katte Road			1	20.00	0.90	0.15	2.70		
W0288 CH 0-25			2	27.00	0.90	0.15	7.29		
Cross Road-1			1	65.00	0.90	0.15	8.78		
Main Road			1	151.00	1.20	0.15	27.18		
Wall Concrete									
W0573 CH 0-45			2	50.00	0.15	0.90	13.50		
W0573 CH 45-80 (Near Temple)			2	50.00	0.15	0.90	13.50		
W0310 Ashwath Katte Road			2	20.00	0.15	0.90	5.40		
W0288 CH 0-25			4	27.00	0.15	0.90	14.58		
Cross Road-1			2	65.00	0.15	0.90	17.55		
Main Road			2	151.00	0.15	1.20	54.36		
							178.34	7070.20	1260864.12
Basic rate		6670.00							
Area Weightage 6%		400.20							
Total		7070.20							
7	34.17 Providing and laying in position plain/Reinforced cement cement concrete M20 for sub structure/Superstructure works, with cement @ 320 kgs, 20 mm & down size graded granite metal course aggregate @ 0.69 cum and fine aggregates @ 0.46 cum machine mixed with super plasticisers @ 3 lts confirming to IS 9103-2008,concrete laid in layers, well compacted and providing weep holes wherever necessary. with necessary scaffolding, form work etc., including cost of labour, HOM curing etc., complete. (P.No.257, I.No.34.17 of PW, P&IWTD SR 2018-19)								
New RCC Culverts		Cum							
Raft Concrete									
			8	12.00	1.20	0.20	23.04		
			1	15.00	1.40	0.30	6.30		
Wall Concrete									
			16	12.00	0.20	1.25	48.00		
			2	15.00	0.30	1.20	10.80		
							88.14	5277.74	465180.00
Basic rate		4979.00							
Area Weightage 6%		298.74							
Total		5277.74							
8	KSRB 4.6.1: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for foundations, footings, bases of columns for mass concrete including cost of all materials, labour complete as per specifications. Specifcation No. KBS 4.6.1 (P.No.16, I.No.4.28 of PW,P&IWTD SR 2018-19)								
New RCC Culverts		Sqm							
Raft Concrete									
			16	12.00		0.20	38.40		
			2	15.00		0.20	6.00		
							44.40	273.48	12142.51
Basic rate		258.00							
Area Weightage 6%		15.48							
Total		273.48							
9	KSRB 4.6.4: Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surfaces such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specifications. Specification No.KBS 4.6.2 (P.No.16, I.No.4.31 of PW,P&IWTD SR 2018-19)								
New RCC Culverts		Sqm							
Wall Concrete									
			32	12.00		1.25	480.00		
			4	15.00		1.20	72.00		
							552.00	379.48	209472.96
Basic rate		358.00							
Area Weightage 6%		21.48							
Total		379.48							

20	KSRRB M2200-6. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200.TMT Bars Fe 500 (P.No.18, I.No.4.46.2 of PW, P&IWTD SR 2018-19)								
	TMT Steel	Tonne							
	Consider 65Kgs/cum for Drain			178.34	0.065	--	11.60		
	Consider 85Kgs/cum for Culverts			88.14	0.085	--	7.50		
							19.10	75223.96	**1436777.64**
	Basic rate	**70966.00**							
	Area Weightage 6%	**4257.96**							
	Total	**75223.96**							
21	Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	100mm Precast Slab	Sqm							
	W/0288 CH 0-25		2	27.00	0.90		48.60		
	Cross Road-1		1	65.00	0.90		58.50		
	Main Road		1	151.00	1.20		181.20		
	W/0606		1	100.00	1.20		120.00		
	Provision of 50% New Precast slab for Damaged Length						144.00		
							552.30	2337.00	1290725.10
	Data Rate	**2337.00**							
22	Providing and fixing **RCC Precast cover slab of 250mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)								
	250mm PRE-CAST Slab	Sqm							
	New RCC Culverts		8	12.00	1.20		115.20		
			1	15.00	1.40		21.00		
							136.20	5418.00	737931.60
	Data Rate	**5418.00**							
23	KSRRB M600-1. Construction of dry lean cement concrete mix CC1:5:10 with OPC cement @160Kgs, with 25mm and down size graded granite metal coarse aggregate at 0.86cum and fine aggregates @ 0.58cum Sub- base over a prepared sub-grade with (coarse and fine aggregate conforming to IS: 383) aggregate cement ratio not to exceed 15:1. Aggregate gradation after blending to be as per Table 600-1, cement content not to be less than 160 kg/ cum, optimum moisture content to be determined during trial length construction, concrete strength not to be less than 10 Mpa at 7 days, mixed in a batching plant, transported to site, laid with a compacting with 8-10 tonnes vibratory roller, finishing and curing complete as per specifications. . MORTH V Revision Specification No. 601, IS 456 Table-5. with OPC at 150 kg/cum and coarse aggregate 0.86cum, fine aggregate 0.58cum using Concrete Batch mix Plant at 75 cum/hr capacity with Slip.((P.No.174, I.No.22.1.1 of PW,P&IWTD SR 2018-19)								
	New CC Road	Cum							
	W/0573 CH 0-45		1	50.00	9.00	0.15	67.50		
	W/0573 CH 45-80 (Near Temple)		1	50.00	4.00	0.15	30.00		
	W/0330 Ashwath Katte Road		1	20.00	4.00	0.15	12.00		
	W/0288 CH 0-25		1	27.00	5.00	0.15	20.25		
	W/0288 CH 25-125		1	100.00	5.00	0.15	75.00		
	Cross Road-1		1	65.00	3.78	0.15	36.86		

						241.61	3800.10	918123.16
Basic rate	3585.00							
Area Weightage 6%	215.10							
Total	3800.10							
Constructing un-reinforced, plain cement concrete for pavements using Grade concrete M30 over a prepared base with OPC coarse aggregate at 0.69 cum, fine aggregates at 0.46 cum.Coarse and fine aggregate conforming to IS:383-2016, with Superplastizer at 3 lts conforming to IS 9103-2008. mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). & Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished with floaters in a continuous operation including provision of contraction, expansion, construction and longitudinal joints,including groove cutting charges, joint filler, separation membrane of impermiable plastic sheet of 125 micron, sealant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades, textured with texturing machine, and curing including cost of all materials, labour,hire charges of machineries,all lead & lift charges etc., complete as per specifications -with OPC at 360 kg/cum and coarse aggregate 0.69cum, fine aggregate 0.46cum.((P.No.176, I.No.22.6.1 of PW,P&IWTD SR 2018-19)								
Coping Concrete	Cum							
W0298 CH 25-125	2	2	100.00	0.15	0.30	18.00		
300106	2	1	100.00	0.15	0.30	9.00		
Vent Concrete								
300106		1	100.00	0.60	0.10	6.00		
New CC Road	Cum							
W0573 CH 0-45		1	50.00	9.00	0.15	67.50		
W0573 CH 45-80 (Near Temple)		1	50.00	4.00	0.15	30.00		
W0010 Ashwath Katte Road		1	20.00	4.00	0.15	12.00		
W0298 CH 0-25		1	27.00	5.00	0.15	20.25		
W0298 CH 25-125		1	100.00	5.00	0.15	75.00		
Cross Road-1		1	65.00	3.78	0.15	36.86		
						274.61	5210.96	1430955.67
Basic rate	4916.00							
Area Weightage 6%	294.96							
Total	5210.96							
Vacuum de-watering with vaccum pump and suction mat and compaction with skin floater rubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift. (P.No 176, I.No.22.7 of PW,P&IWTD S.R 2018-19)								
New CC Road	Sqm							

		1	35.00	4.00		140.00		
		1	20.00	4.00		80.00		
		1	25.00	5.00		125.00		
		1	100.00	5.00		500.00		
		1	50.00	3.78		189.00		
Basic rate	68.00					1439.00	72.08	103723.12
Area Weightage 6%	4.08							
Total	72.08							

Total Construction Cost-A	8847884.08
12% GST on KPWD 2018-19 items-B=Ax12%	1061746.09
Total Construction Cost Including GST Charges-C=A+B	9909630.16
Add 1% for PMC including GST Charges-D=Ax1%	88479.00
Sub Total-E=C+D	9998109.16
Miscellaneous and rounding off-F	1890.84
Total G=E+F	10000000.00

Certificate.

1) The rates adopted based on the PWD SR, Bangalore circle for year 2018-19.
2) The provisions made in the estimate are necessary and essential.
3) The workspot was inspected and work is found to be necessary.
4) The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer

2/5/2020

Technical Sanction
Accorded For RS 100 as lumpsum
Head of A/C P1878
CER NO :.24..... Dt:: 01.06.2020

TA

CE (YNK)